



**Computer Science Committee of Visitors Report**  
**Office of Advanced Scientific Computing Research**  
**U.S. Department of Energy**

**presented to**

**Advanced Scientific Computing Advisory Committee**

**American Geophysical Union**

**August 12, 2009**



# Committee of Visitors



## ASCR Computer Science Committee of Visitors June 30 – July 2, 2009

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# COV Charge



- **I. Assess the efficacy and quality of the processes used during the past three years to:**
  - a. solicit, review, recommend, and document application and proposal actions and
  - b. monitor active awards, projects and programs
  
- **II. Within the boundaries defined by DOE missions and available funding, comment on how the award process has affected:**
  - a. the breadth and depth of portfolio elements, and
  - b. the national and international standing of the portfolio elements



## Efficacy and quality of the processes used to solicit, review, recommend and document application and proposal actions



- **Finding**

The solicitation and review processes appear to be effective and fairly administered. However, the documentation of these processes and associated summary statistics are not very readily available and this impedes effective presentation of the competitive nature of the CS research portfolio

- **Recommendations**

The program should automate the archiving of material related to each of its solicitations, including the call, letters of intent, full proposals, reviewer comments, and selection/rejection statements, in a single easily-accessible repository. The program should also collect and maintain statistics related to each of its calls in a consistent format that would facilitate analysis of the number of responses, reviewed proposals and funded proposals



## Efficacy and quality of the processes used to monitor active awards, projects and programs



- **Finding**

The CS program managers use generally effective mechanisms, including site visits, meetings and progress reports, to monitor ongoing awarded projects. Control is provided by annual financial decision points

- **Recommendation**

The program should exploit ASCR's team approach with its planned increased staff to improve the frequency and depth of monitoring efforts



Within the boundaries defined by DOE mission and available funding, comment on how the award process has affected the breadth and depth of portfolio elements



- **Finding**

The CS programs have broadly engaged the high end computing community. They have provided the depth necessary to facilitate research into effective use of leadership-class capability computing. There has not been a comparable engagement with the data-intensive aspects of the CS mission. However, initial efforts to recruit talent in data management are commendable

- **Recommendations**

The program should launch strategic initiatives in all mission relevant aspects of data-intensive computing, data management and analysis. The entire program should further engage the broader CS community in its reviews and workshops to define future research activities



Within the boundaries defined by DOE mission and available funding, comment on how the award process has affected the national and international standing of the portfolio elements



- **Finding**

The program contributes to DOE's leadership role in capability computing and is internationally recognized for the impact of its research results. Its software libraries and tools are used worldwide. The program's support for the International Exascale Software Project (IESP) demonstrates global leadership

- **Recommendation**

The program should continue its leadership in high end computing and expand its collaborations broadly with the international community



# General Observation



- **Finding**

The committee found the number of permanent staff currently allocated to the CS program insufficient to the task at hand. In recognition of this, SC has approved three additional staff

- **Recommendation**

The COV recommends ASCR fill the approved CS vacancies as quickly as possible by working with HR to streamline the hiring process